



TECHNICAL UNIVERISTY OF MOMBASA

Faculty of Engineering & Technology

UNIVERSITY EXAMINATION FOR:
BACHELOR OF TECHNOLOGY IN MICROBIOLOGY & BIOTECHNOLOGY
(BTMB Y2 S2/Y4 S2)

EIT 4215: INFORMATION TECHNOLOGY

END OF SEMESTER EXAMINATION

SERIES: APRIL 2014

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions.

Attempt question **ONE (COMPULSORY)** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

Question One (Compulsory)

- a) Provide definition for the following terms: **(6 marks)**
- (i) System program
 - (ii) Application program
 - (iii) Algorithm
- b) Define the following terms: **(6 marks)**
- (i) Internet
 - (ii) Extranet
 - (iii) WWW
 - (iv) Internet
- c) Describe FOUR types of Network topologies. **(6 marks)**
- d) Formulate an algorithm to calculate average of three numbers. **(4 marks)**

- e) Represent the Algorithm above using a flow chart. (4 marks)
- f) Write a pseudo code for the algorithm above. (4 marks)

Question Two

- a) Describe any THREE types of errors in programming. (6 marks)
- b) List and describe any FOUR types of variables used in C language. (4 marks)
- c) Write a C program that prompts the user for two numbers and gets the sum. (6 marks)
- d) Name and describe FOUR inbuilt functions in C (4 marks)

Question Three

- a) Illustrate TWO types of comment in C. (2 marks)
- b) State FOUR functions of comments in programming. (4 marks)
- c) Describe FOUR software that form the program development environment. (6 marks)
- d) Describe FOUR types of network devices. (8 marks)

Question Four

- a) Write a C program that prompts the user for the first initial of his/he name and prints the output. (4 marks)
- b) Distinguish between the following programming language giving ONE advantage and ONE disadvantage of each.
(i) Assembly language
(ii) Machine language
(iii) High level language (6 marks)
- c) Define the term data communication (2 marks)
- d) Identify FIVE different forms of information carried by data communication. (5 marks)
- e) List THREE types of networks according to geographic span. (3 marks)

Question Five

- a) What is stepwise refinement? (2 marks)
- b) List FOUR advantage of stepwise refinement (4 marks)
- c) Define the term Network Protocol. (2 marks)
- d) Describe FOUR types of Network Protocols (4 marks)
- e) Distinguish between bounded media and unbounded media. (8 marks)